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EDUCATIONAL AND VOCATIONAL INTERESTS
OF MEMBERS OF FUTURE HOMEMAKERS OF AMERICA

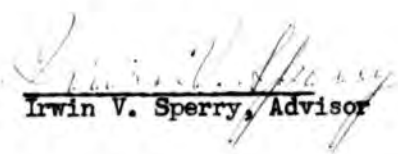
by
Mary Floyce Price

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CHAPTER I

INTRODUCTION

Adolescence is a time of great possibility--a period that is filled with new opportunities, new experiences, and great promises. With all its satisfactions, however, this stage of life is often very difficult, for the process of taking one's place as a fit and happy member of contemporary society is not an easy one. During this transitional period, various major decisions must be made, many with which these young people need guidance. In addition to guidance in the classroom, counseling from parents, teachers, and other people, individuals have obtained help in solving problems from various clubs and organizations whose primary purposes are to build character and inculcate moral values, as well as give worthwhile information on various subjects that will be helpful to them as they take their places in society. One such organization for high school girls is the Future Homemakers of America, a national organization of pupils studying homemaking in junior and senior high schools.

The overall goal of the Future Homemakers of America is to help individuals improve personal, family, and community living. According to the Future Homemakers of America Chapter Handbook,¹ in order to

¹Chapter Handbook for Organizations of High School Homemaking Students (National Headquarters, Office of Education, U. S. Department of Health, Education, and Welfare, Washington, D. C., 1957) pp.7-10.

reach this goal, development is encouraged in eight different aspects by:

1. Developing Personally

The local chapter of Future Homemakers of America provides many experiences that help individuals grow personally. These experiences include helping to plan and carry out the chapter's work, holding an office, or serving on a committee. These experiences help teen-age girls gain poise and self-confidence. Also from working with each other, they learn the give-and-take of good human relationships, a necessity for successful personal living.

2. Improving Home and Family Living

By growing personally, members of the Future Homemakers of America live up to their second belief, that class and chapter experiences help improve home and family living. Managing household tasks easily, and helping each family member develop individually (at the same time maintaining family unity), are only a few of the things a good homemaker must do.

3. Preparing For Community Living

Through study of the community, the members learn about needs for certain community facilities, and the standards these facilities should meet. Chapters often take on community service projects. While doing worthwhile community service, the girls are also preparing themselves

for adult community work. Good homemakers must also be good community-makers.

4. Understanding Other Nations

It is the belief of the Future Homemakers of America that discontent, disease, and hunger in different parts of the world can affect families' happiness. They realize that in order to understand other nations, there must be some understanding of other nations' problems, interests, and cultures. Many chapters of Future Homemakers of America review books, see films, and discuss other nations. Foreign visitors to the United States are asked to speak to chapters, and some members have teen-age pen-pals in other countries.

5. Earning a Living

In accordance with the belief which Future Homemakers of America hold, that chapter experiences should contribute to future success in earning a living, programs are given on such topics as family understanding, management of time, energy, and money, and other subjects which aid members in seeing possible ways of promoting family harmony and ways of solving problems that disrupt family happiness.

Realizing that well-being and family happiness can be disturbed by a wage-earner's dissatisfaction with his job, time is spent on discussions of vocations and collecting information what will aid in choosing a desirable occupation for individual interests and abilities. Many chapters

visit colleges, universities, and businesses to gain more information about various vocations.

6. Practicing the Democratic Way of Living

Future Homemakers of America believe that homemaking education should help them to live democratically.

Realizing that such a form of government as ours places a great trust in the individual, they believe development of the individual to the fullest should be encouraged. Members examine their attitudes, beliefs, and values, and try to determine why they hold to them, and how they can improve them. They endeavor to develop the personal honesty entrusted to them by a democracy. From these experiences they are better prepared to make sound decisions. The variety of experiences carried out by the chapter offer opportunity for development of talent and ability.

7. Basing Experiences on Needs

Chapter experiences are also based on the needs of the members, their families, and the community. In order to learn more about the community, civic leaders and representatives from other community groups are sometimes invited to attend planning sessions.

8. Living What They Learn

Future Homemakers of America believe that success is measured by whether or not they live what they learn. The experiences carried on outside the classroom give real

opportunity for evaluation of growth toward the homemaking goal, because outside-the-classroom attitudes and ideals may show up, that previously were not evident. Also, the meaning of a chapter program or classroom lesson does not truly come out until it is applied.

One of the major decisions for most high school students is the choice of their life's work, and it is with the making of this decision that many seek and need help. The investigator became interested in knowing if the educational and vocational interests of the members of Future Homemakers of America Organizations, whose basic goal is to improve personal, family, and community life, were any different from those who were not members of this organization. Therefore, the purpose of this study was (1) to determine if there were differences in the educational and vocational interests of the members and non-members, and (2) to determine what types of differences existed, if any.

Six working hypotheses were set forth in relation to this study. These hypotheses in the order in which they were treated in the study were:

1. There is no significant difference in the scores of the members and non-members in the ten areas of interest measured by the Kuder Vocational Preference Record.
2. There is no significant pattern of change based on year level in scores of the entire sample (members and non-members collectively) in regard to vocational interest.

3. There is no significant pattern of change in vocational interest based upon intelligence quotient in the entire sample.
4. There is no significant difference in the scores of the members and non-members on the Opinions about Education test.
5. There is no significant pattern of change in regard to year level in scores of the entire sample on the Opinions about Education test.
6. There is no significant pattern of change in scores on the Opinions about Education test based upon intelligence quotient.

Certain terms have specific meanings as applied to their use in this study. These terms are defined as follows:

Members are girls who were currently enrolled as members of the Future Homemakers of America at the time the data were collected.

Non-Members are girls who were not members of the Future Homemakers of America at the time the data were collected.

Chapter is the local school organization of the Future Homemakers of America.

Terms used in referring to the ten interest areas constitute those included in the Kuder Vocational Preference Record, the psychological instrument used to measure interests, and are defined as follows:

Outdoor interest means that you prefer work that keeps you outside most of the time and usually deals with animals and growing things. Forest rangers, naturalists, and farmers are among those high in outdoor interests.

Mechanical interest means you like to work with machines and tools. Jobs in this area include automobile repairmen, watchmakers, drill press operators, and engineers.

Computational interest means you like to work with numbers. A high score in this area suggests that you might like such jobs as bookkeeper, accountant, or bank teller.

Scientific interest means you like to discover new facts and solve problems. Doctors, chemists, nurses, engineers, radio repairmen, aviators, and dieticians usually have high scientific interests.

Persuasive interest means that you like to meet and deal with people and to promote projects or things to sell. Most actors, politicians, radio announcers, ministers, salesmen, and store clerks have high persuasive interests.

Artistic interest means you like to do creative work with your hands. It is usually work that has "eye appeal" involving attractive design, color, and materials. Painters, sculptors, architects, dress designers, hairdressers, and interior decorators all do "artistic" work.

Literary interest shows that you like to read and write. Literary jobs include novelist, historian, teacher, actor, news reporter, editor, drama critic, and book reviewer.

Musical interest shows you like going to concerts, playing instruments, singing, or reading about music and musicians.

Social Service interest indicates a preference for helping people. Nurses, Boy or Girl Scout leaders, vocational counselors, tutors, ministers, personnel workers, social workers, and hospital attendants spend much of their time helping other people.

Clerical interest means you like office work that requires precision and accuracy. Jobs such as bookkeeper, accountant, file clerk, saleslady, secretary, statistician, and traffic manager fall in this area.²

²These definitions are given on the copywrited Profile Sheets used in conjunction with the Kuder Vocational Preference Record and obtained from Science Research Associates, Chicago, Illinois.

Chapter II includes a review of some of the research and authoritative opinions concerning (a) educational interests of adolescents, and (b) vocational interests of adolescents. In Chapter III are described the procedures used in obtaining and analyzing the data, and the factors used in comparing the two groups. The analysis of the information obtained is presented in Chapter IV. The summary, conclusions, and recommendations for further study are included in Chapter V.

CHAPTER II

SURVEY OF LITERATURE

The literature reviewed is concerned only with recent research relating to the educational and vocational interests of adolescents. The literature reviewed may be divided into two categories; (a) educational interests of adolescents, and (b) vocational interests of adolescents. Some of the research, however, is applicable to either group.

Literature on Educational Interests of Adolescents

"The school has a powerful influence in shaping an adolescent's concept of what he is and what he might be."¹

Contrary to the belief of many adults, that young people are indifferent to school and to teachers, studies have revealed that teenagers are concerned over many problems relating to school. In reporting findings of various people who had done research relative to these worries in school, Wattenberg listed some of these as being in the area of school learning, relationships with teachers, fear of failing exams, and inability to find interest in school.² Wattenberg further concluded that school is an important area in the lives of

¹Arthur T. Jersild, The Psychology of Adolescence, (New York, The Macmillan Company, 1957) p. 277.

²William W. Wattenberg, The Adolescent Years, (New York, Harcourt, Brace, and Company, 1955) p. 231.

young people, and is a source of uneasiness to many. High school students spend time discussing school programs, examinations, and teachers, and some of this talk reflects anxiety.³

Education was considered to be an important interest for seventh and eighth graders who took part in an interest study directed by Sister Mary Amatora, involving all sections of the country. This study was designed to elicit adolescents' true interests by giving them complete freedom to express their interests by asking them to write on a sheet of paper, three of their greatest interests. These interests were to be listed in order of the importance to them. Even at this early stage of adolescence, composite scores of boys placed vocation and education as third and fourth greatest interest respectively. Girls' scores placed vocation second place and education fourth place in the list of interests.⁴

Garrison referred to various studies conducted relative to the causes given for young people's quitting school. These reasons included dissatisfaction with school, economic need, family situation, lure of a job, suitable subjects not offered, and teacher-pupil relationship.⁵ Hecker, as reported by Jersild, found that among those

³Ibid., p. 232.

⁴Mary Amatora, Free Expression of Adolescents' Interests, (Vols. 55-56 of Genetic Psychology Monographs. 58 Vols.; Provincetown, The Journal Press, 1957) pp. 186-192.

⁵Karl C. Garrison, Psychology of Adolescence, (Englewood Cliffs, Prentice-Hall, Inc., 1956) p. 382.

who leave school before graduation, many failed to take part in the school's extra-curricular activities.⁶

Although some students experience difficulty in remaining in school, they have remained until graduation. Jersild referred to a study conducted by Penty, of the relation of poor reading and leaving school. The graduates were asked reasons for remaining in school, although they were experiencing difficulty in reading. Some of these reasons included strong personal desire to graduate, encouragement from the family, family expectations, interest in specific subjects, interest in sports and other activities, desire for a better job, help of counselors and teachers, and liking to be with other young people.⁷

The Girl Scouts and the Survey Research Center conducted a nationwide study of girls between the ages of eleven and eighteen. One of the questions asked on the questionnaire was "Do you think you will finish high school?" Ninety-six percent of the girls answered "yes". Fifty-nine percent indicated they were planning to go on to school after graduation from high school. Forty-nine percent already had clear choices of the types of schools they wanted to attend after high school. One out of three expected to attend a college, university or teachers' college. Eleven percent expected to enter nurses training and fourteen percent wanted to take secretarial training.⁸

⁶Jersild, op. cit., p. 286.

⁷Ibid., p. 287.

⁸Survey Research Center, Adolescent Girls, A Nationwide Study of Girls between Eleven and Eighteen Years of Age (University of Michigan) pp. 26-30.

Literature on Vocational Interests of Adolescents

"The process of making occupational choices and of adjusting vocationally takes place over a period of time . . . Certain aspects of the choice process may begin in childhood, and occupational choice and adjustment processes extend throughout adolescence and adulthood. Various aspects of choice and adjustment must be dealt with throughout life."⁹

Ginzberg has divided the process of occupational choices into three parts: the period of fantasy choices (up to age 11), the period of tentative choices (between 11 and 17), and the period of realistic choices (17 and young adulthood). According to this study, most adolescents are in the period of tentative vocational choices, while some in late adolescence have reached the period of realistic choices, Ginzberg concludes.¹⁰

Some adults have carried out childhood ambitions for their vocations. These ambitions were realized early in childhood and steady progress was made toward reaching them. Wattenberg points out that children often have definite, but frequently unrealistic ideas as to what they will be when they grow up. Boys think of being jet pilots, cowboys, or explorers, while girls think of being nurses or teachers. The first step toward vocational choice for many teen-agers is either to cast aside the unrealistic ideas or to settle upon their initial goal, if it is a real possibility for them.¹¹

⁹Jersild, op. cit., pp. 303-304.

¹⁰Eli Ginzberg, and Associates, Occupational Choice, An Approach to a General Theory, (New York, Columbia University Press, 1951) pp. 186-188.

¹¹Wattenberg, op. cit., p. 356.

Roeber found from a study of the change of ideas concerning vocational ambitions of boys and girls in small communities, that as the students grew older, the professional-type occupations tended to be replaced by the realistic trend to select occupations outside of the professions. This is evidence of a more mature and realistic point of view.¹²

Wattenberg also refers to a study done by Taylor, who did a follow-up study of vocational interests past graduation. She found that permanence of vocational interests increased with age for boys. Girls were less likely than boys to change their interests at 17 and 18 years of age, but changes were more likely for girls at 20. Taylor felt that her hypothesis that interests are developed early before vocational training and experience are encountered, was supported.¹³

Garrison states that there is a marked tendency on the part of the high school student to aspire to a rather high goal in their vocational planning. Reference was made to the Michigan Study, which showed that by the time the students reach twelfth grade, they have fairly definite ideas of the kinds of occupations they want to enter. In this study, students were asked what they would like to do if they were guaranteed an income on which their family had everything they wanted. Thirty-nine percent of the boys and thirty-six percent of the

¹²Edward Roeber, A Study of Occupational Interests of High School Students, (Vol. 34 of Journal of Educational Psychology. 48 Vols.; Baltimore, Warwick and York, Inc., 1943) p. 361.

¹³Wattenberg, op. cit., pp. 356-357.

girls said they would get a job anyway. Thirty-six percent of the boys and thirty-two percent of the girls said they would get a part-time job, while only two percent of the girls and three percent of the boys cared nothing about getting a job at all.¹⁴ Also in the Michigan Study, students were asked what kind of work they would like to do, and the kind of work they expected to do. Results of the study showed that two-thirds of the tenth and twelfth grade girls aspired to professional, clerical, and sales work, while only eight percent aspired to go into all the other types of occupations, with the exception of homemaking.¹⁵

There are many factors which tend to influence somewhat the choice of a vocation. Peters found from a study involving more than 700 high school seniors, the students indicated the following factors in order of their importance in contributing to one's choice of a vocation: The parents, a friend, a professional acquaintance, and other relatives. Other factors listed were opportunity for advancement, and opportunity for quick employment.¹⁶

Wattenberg states, "The key factors in coming to a decision (vocational) are likely to be family influence, prestige rating, sub-cultural expectations, and the availability of jobs."¹⁷

¹⁴Garrison, op. cit., p. 412.

¹⁵Ibid., pp. 412-413.

¹⁶E. F. Peters, Factors Which Contribute to Youth's Vocational Choice, (Vol. 25 of Journal of Applied Psychology. 42 Vols.; Lancaster, The Science Printing Press Company, 1941) pp. 428-430.

¹⁷Wattenberg, op. cit., p. 371.

Jersild listed people who had been indicated as being influential in the choice of a vocation in the order of: parents, other relatives, and friends. Situations such as work experience and school subjects were considered to be influential. Also mentioned were interests, ability, or aptitude, income of job, and opportunity for advancement. He stated that no one influence has been shown to be invariably more important than another.¹⁸

Zachry believes that economic circumstances are the chief selective factor. She points out that these may be such that boys and girls have no freedom to choose, but must begin work early at whatever employment may be available, narrowed in many cases to occupations for which no long training is needed.¹⁹ Social status is also listed with economic status of the family by Garrison as one of the important factors influencing the choice of a vocation.²⁰

Studies have revealed the influence of the parents on the choice of the occupation for their children. Jones revealed, as reported by Wattenberg, that in a group of seniors at Omaha Technical High School, 83% of the boys and 96% of the girls had received vocational advice from their mothers, and 64% of the boys and 74% of the girls had discussed vocations with their father.²¹

¹⁸Jersild, op. cit., pp. 307-308.

¹⁹Caroline B. Zachry, Emotion and Conduct in Adolescents, (New York, Appleton-Century-Crofts, 1940) pp. 429-430.

²⁰Garrison, op. cit., p. 419.

²¹Wattenberg, op. cit., p. 359.

The differing importance of job availability in choosing a vocation was brought out by Norton, as reported by Wattenberg. Norton interviewed 150 teachers and 43 factory workers. Asked what influences had led to their occupational choice, the teachers gave top-ranking to family ideas; the factory workers to financial need. The factory workers made their vocational decisions on the average, four years later than the teachers. Because they had no definite goals, they drifted into chance vacancies. Not only in factory work, but also in such fields as personal service, availability of jobs may be very influential. Wattenberg believes it tips the scales for a great many rural young people.²²

²²Ibid., pp. 361-362.

CHAPTER III

PROCEDURES

The investigator chose to use Asheboro, Bessemer, and Sumner High Schools from which to select subjects for this study. There were two reasons for choosing these three schools. First, there was the assurance of complete co-operation from the homemaking teachers in these schools, since they, as well as the investigator, were supervising teachers who worked with student teachers from the Home Economics Education Division of Woman's College. Second, the investigator was familiar with the type of homemaking program being offered in these schools because they were used as student teaching centers.

Asheboro High School, which is in the city school system of Asheboro, had an enrollment of approximately 930 students in grades nine through twelve. Homemaking was offered on the first and second year levels. The staff included one full-time vocational teacher and one additional teacher who taught three classes of homemaking. The enrollment in the Future Homemakers of America Chapter was 49.

Bessemer High School is a county school, but at the time of the study was within the city limits of Greensboro. The high school enrollment, which included grades nine through twelve, was estimated at 375. Approximately 100 students were enrolled in the first and second year vocational homemaking classes offered. The one teacher advised a Future Homemakers of America Chapter of 37 girls.

Summer High School, located about seven miles from Greensboro, is a rural, consolidated county school with an estimated enrollment of 500 pupils in grades nine through twelve. The vocational homemaking classes offered on the first and second year levels had an enrollment of approximately 100 students taught by the one homemaking teacher. She also advised a Future Homemakers of America Chapter with a membership of 52.

Choosing The Subjects

Lists of members of Future Homemakers were secured from the homemaking teachers in the three schools. For this study, a random sample of fifty members was selected from the total membership of the chapters. Names of the members were arranged alphabetically according to year level, and every third member was selected to be used as a subject. The investigator visited the three schools to secure information from the cumulative records concerning the selected members. Permission to use the records was previously granted by the principal of each school. From the cumulative records were secured the birthdate, intelligence quotient, year level, and scholastic average. Cumulative records were used also to select the non-members to complete the matched pairs. When a non-member was found to be within three months the same age as a member, whose year level was the same, whose intelligence quotient was within five points the same, and whose scholastic average was within five-tenths of a point the same, she was chosen to be paired with the member, making a matched pair.

The code used to compute the scholastic average gave scholastic grades in the 90's a value of 4, grades in the 80's a value of 3, grades in the 70's a value of 2, and grades in the 60's a value of 1. Some of the information that was needed for the study was incomplete on some of the cumulative records of the chosen members. In that case, the girl whose name appeared above that person on the alphabetized list was used. Only forty-two members, rather than fifty, were matched because of inability of the investigator to find a non-member who could be matched within the limitations of these criteria.

The selected matched pairs were then given the Kuder Vocational Preference Record, prepared by Dr. G. Frederick Kuder, and a portion of a test developed by Dr. A. N. Hieronymous entitled A Study of Social Class Motivation; Relationships Between Anxiety For Education and Certain Socio-Economic and Intellectual Variables. The portion used was Part II, "Attitudes Toward Education", items 1-46.

Standardization and Reliability of the Tests

The Kuder Preference Record is one of the most popularly used vocational interest inventories on the market. As to its reliability Anastasi states:

"The reliabilities of the Kuder Scales, as determined by the Kuder-Richardson technique, cluster around .90. Stability over intervals of about a year or less appears to be satisfactory. Little information is available regarding stability over longer periods. There is some evidence to suggest that, at least in the case of high school students, shifts in high and low interest areas are relatively frequent when retests are several years apart. Studies on the simulation of interest scores have shown that faking is possible to some extent on the Kuder. A growing list of

empirically established occupational profiles has been included in successive revisions of the manual. The data for these average occupational profiles have been contributed largely by test users."¹

According to an unpublished manuscript accompanying Dr. Hieronymous' tests and study,² an original scale was constructed by the method of summated rating. At that time, several scales for measuring attitude toward education were available, but none were considered satisfactory for the purpose of his study since the emphasis was to be placed on the student's opinion as to the value of an education rather than on his attitude toward the educational practices of the school which he was attending.

In constructing the scale, Dr. Hieronymous' first step was to secure a large number of statements about the value of an education, approximately half of which were favorable and half unfavorable. From an original compilation of one hundred and seventy such statements, fifty were selected for further refinement. Twenty-five multiple choice items were also prepared, with an attempt being made to select, for consideration by the student, situations in life which reflect the value placed upon education.

In order to secure data for further item refinement, opinions as to the validity of each item were obtained from twenty-eight

¹Ann Anastasi, Psychological Testing, (New York, The Macmillan Company, 1957) p.574.

²A. N. Hieronymous, A Study of Social Class Motivation; Relationships Between Anxiety for Education and Certain Socio-Economic and Intellectual Variables, (Mimeographed material which accompanied permission for investigator to use tests in this study).

educators representing a variety of experiences and interests, who sorted into five piles cards bearing the items. Opinions regarding the two types of items were treated separately. Median ratings and inter-quartile range values were computed from ogives. Surviving this treatment were forty statements and seventeen multiple choice items. These comprised a tryout scale. The fifty-seven item scale was administered to two hundred and thirty-one boys and two hundred and eleven girls in grades eight, nine, and ten of two fairly large representative school systems. For purposes of time analysis, indices of internal consistency were computed separately by sexes. The index of discrimination was the difference between the means of the high and low twenty-seven per cent of the distributions. The indices thus obtained were used in conjunction with other criteria to select items for the final survey form. On the basis of try-out data, the predicted split-halves within-schools reliability co-efficient for the forty-six item attitude scale in the final survey was .90.

Scoring the Tests

The preference records were scored according to instructions accompanied by the records, and a profile was made for each girl. The Opinions about Education tests were scored by a scale which had been developed by Dr. Hieronymous.

Comparing the Data

Scores in the ten areas of interest of the Kuder Preference

Record and scores on the Opinions about Education test for members and non-members were tabulated and appropriate tables were prepared.

The investigator was dealing with relative assumptions pertaining to the differences that existed between the vocational and educational interests of the members and non-members, the hypothesis being that there were no significant differences between the two groups. This hypothesis (that the true difference is zero) is known as the null hypothesis.³ However, if the statistic is such that the null hypothesis can be rejected with confidence, it is said that the difference is significant, that the difference is not zero. The obtained difference could have occurred by chance with unlikely frequency. However, to prove a difference is significant (rejecting the hypothesis) does not establish the cause of the difference. When the null hypothesis is rejected, only one possible cause is rejected-- chance fluctuation due to random selection.

In order to determine the significance of differences between interests of members and non-members of matched pairs in this study, a statistical treatment for the likelihood of error in the samples was necessary. Because standard deviations for small samples tend to be smaller than standard deviations in the population, the formula for "t" for small related samples was used to test the standard deviation in

³E. F. Lindquist, Statistical Analysis In Educational Research, (Cambridge, The Riverside Press, 1940) p. 15.

sampling.⁴ This formula, $t = \frac{M_o - M_H}{\sqrt{\frac{\sum d^2}{n(n-1)}}}$ is the improved estimate of the variance (square of the standard deviation of any distribution) of the mean in small samples. M_o is the observed mean of the difference between the two matched groups, and M_H is the hypothetical mean of the difference between the two matched groups and is zero, as fits the null hypothesis. The summation of the difference squared is the summation of the variance. The number of cases in the sample is represented by n and is corrected for use with small samples by using $n(n-1)$ in the formula. The level at which the difference was significant was determined by a prepared table in the text.⁵ The "t" test, therefore, was applied to the differences in the means of the scores of the members and the non-members in each area of the vocational interests and to the difference in means of the scores on the Opinions about Education.

⁴E. F. Lindquist, Statistical Analysis In Educational Research, (Cambridge, The Riverside Press, 1940) p. 59.

⁵Ibid., p. 59.

CHAPTER IV

ANALYSIS OF THE DATA

The purpose of this study was to compare the vocational and educational interests of members of Future Homemakers of America with non-members. Data were obtained from the cumulative records of thirty-nine girls who were members of the Future Homemakers of America, and of thirty-nine girls (matched on the bases of year level, age, intelligence quotient, and scholastic grades), who were not members, and from scores obtained from the Kuder Vocational Preference Records and Opinions about Education tests which the investigator administered to the girls.

From the total of thirty-nine matched pairs in the study, thirteen pairs were from Asheboro High School, nine pairs from Bessemer High School, and seventeen pairs from Sumner High School. A further breakdown shows that from the total of seventy-eight individual subjects used in the study, eighteen were ninth graders, twenty-six, tenth graders, twenty-two, eleventh graders, and twelve, twelfth graders.

A table showing the intelligence quotient, year level, scholastic average, and age of each subject is shown in the appendix. The intelligence quotient range of the subjects was from 71 to 119, the mean being 99.5. The scholastic rating ranged from 2.0 to 4.0, the mean being 3.0. It was noted that there was not necessarily a direct relationship between intelligence quotient and scholastic rating.

The ages ranged from fourteen years, six months, to eighteen years, two months. As far as the investigator was able to determine, none of the subjects had accelerated or repeated a grade; therefore the ages of the girls were average ages of students at that year level.

VOCATIONAL PREFERENCES

Using the profiles drawn from the subjects' scores on the Kuder Vocational Preference Record, the investigator compared members and non-members by studying separately each of the ten areas of the vocational interests measured by the test. The investigator's hypothesis was that there were no significant differences between the scores of the members and those of non-members in the ten areas of interest. Table I shows a comparison of the scores of the two groups in each interest area. Members scored higher than non-members in the mechanical, scientific, persuasive, musical, and social service areas. Non-members scored higher in outdoor, computational, artistic, literary, and clerical areas.

Outdoor

For the outdoor area, the total score for the members was 1056, while the total for the non-members was 1077. The mean score for members was 27.1, and that for the non-members was 27.6, making a difference of .5 in favor of the non-members. After applying the "t" test as given by Lindquist for matched pairs, this difference proved not to be significant at the 10% level; therefore the null hypothesis

TABLE I
SCORES ON KUDER VOCATIONAL PREFERENCE RECORD

Area of Interest	Members' Total Scores	Non-Members' Total Scores	Members' Mean Scores	Non-Members' Mean Scores
Outdoor	1056	1077	27.1	27.6
Mechanical	892	753	22.9	19.3
Computational	900	924	23.1	23.7
Scientific	1248	1140	32.0	29.2
Persuasive	1442	1378	37.0	35.3
Artistic	1075	1178	27.6	30.2
Literary	727	766	18.6	19.6
Musical	556	536	14.3	13.7
Social Service	2234	2031	57.3	52.1
Clerical	2391	2432	61.3	62.4

that there was no significant difference in the scores of the members and of non-members was supported in the outdoor area. Any difference in scores would be due to limitations of sampling, rather than to any significant difference between the members and non-members. It can therefore be concluded that members of the Future Homemakers of America did not manifest a greater true interest in outdoor activities than did non-members in this sample.

Mechanical

The total scores for the mechanical area were 892 and 753 respectively for members and non-members, with a mean score of 22.9 for the members and 19.3 for the non-members. The difference of 3.6 in the means favored the members. Application of the "t" test revealed that the difference between the scores of the two groups was significant at the 5% level; therefore the null hypothesis that there was no significant difference in the scores of the members and non-members was not supported in the area of mechanical interest. The difference of 3.6 favoring the members indicated that this group had greater interest in mechanical vocational activities than did the non-members, and that this difference of interest was not due entirely to limitations in the sampling.

Although all homemaking students do not belong to the Future Homemakers of America, it is possible that members had more interest in homemaking activities, with a corresponding interest in household equipment, thus helping to account for the difference.

Computational

Scores for the computational area totaled 900 for the members, and 924 for the non-members. Mean scores for the members and non-members respectively were 23.1 and 23.7, leaving a difference of .6 in favor of the non-members. Results of the "t" test proved this difference was not significant even at the 10% level; therefore the null hypothesis that there was no significant difference between the scores of the members and those of non-members was supported in the computational area. The slight difference in means may be due to chance and does not represent a true difference. Although one of the goals of the Future Homemakers of America is to help improve personal, family, and community living through earning a living and managing well the resources of money, time, and energy, it could be concluded that members of the Future Homemakers of America did not show a greater interest in the computational activities than did the non-members in this group.

Scientific

In the scientific area, members scored higher with a total score of 1248, than non-members who had a total of 1140. Members' mean score was 32.0, while non-members' mean was 29.2, making a difference of 2.8 in favor of the members. This difference was not significant at the 10% level, according to results of the "t" test, and the null hypothesis that there was no significant difference in the scores of members and those of non-members was supported in the scientific area.

Although science concepts are taught in homemaking classes, homemaking does not count as a unit for the science requirements for graduation from high school in North Carolina. It should be noted that all high school students must take two units in science, usually biology and at least one other science course. Perhaps this fact helps to account for no greater score in the scientific area on the part of the members. Also, there is the probability that the Kuder Preference Record does not measure interest in the particular science concepts that are taught in the homemaking classes. Neither does it measure knowledge of scientific concepts, only interest in scientific vocational activities.

Persuasive

Members scored higher than non-members in the persuasive area with respective total scores of 1442 and 1378, and mean scores of 37.0 and 35.3. The difference of 1.7 favored the members. Results of the "t" test showed that this difference was not significant at the 10% level. The null hypothesis that there was no significant difference in the scores of the members and those of the non-members was supported in the persuasive area. It can, therefore, be concluded that members of the Future Homemakers of America did not show a greater interest in the persuasive area of interest than did the non-members in this study.

Artistic

Totals in the artistic area revealed that non-members scored

higher with a score of 1178 than members with a score of 1075. The mean score for non-members was 30.2, while the mean for members was 27.6, leaving a difference of 2.6 in favor of the non-members. Results of the "t" test showed this difference was not significant at the 10% level; thus the null hypothesis that there was no significant difference in the scores of the members and those of non-members was supported in the artistic area. It may be concluded that members of the Future Homemakers of America did not show a greater interest in the artistic area than did the non-members.

Literary

In the literary area, the total of the members' scores was 727, while the non-members scored higher with a total of 766. Mean scores were 18.6 for members and 19.6 for non-members, making a difference of one point in favor of the non-members. The null hypothesis that there was no significant difference in the scores of members and non-members was supported in the literary area when the results of the "t" test showed this difference was not significant at the 10% level. Although reading and creative writing are encouraged by the Future Homemakers of America as a means of improving personal, family, and community living, some of the non-members were members of other school clubs that encourage some of the same type of development in the literary area. Members of the Future Homemakers of America did not show a greater interest in literary activities than did non-members.

Musical

A higher total was reached in the musical area by the members who scored 556, than by the non-members who scored 536. The mean for the members was 14.3, while the mean for the non-members was 13.7. The difference of .6 favoring the members was not significant, according to results of the "t" test; therefore the null hypothesis that there was no significant difference in the scores of the members and of the non-members was supported in the musical area. It may be concluded, therefore that there was no greater interest in the musical area exhibited by members of the Future Homemakers of America.

Social Service

Members scored higher in the social service area with a total of 2234 than non-members with a total of 2031. The mean score for the members was 57.3, while non-members' mean was 52.1. This difference of 5.2 was found to be significant at the 2% level, when the "t" test was applied. The null hypothesis that there was no significant difference between the scores of the members and those of non-members was not supported in the social service area.

As has already been stated, the overall goal of the Future Homemakers is to improve personal, family, and community living, and in order to reach this goal, development is encouraged in eight different aspects. Several of these sub-goals relate very directly to social service, while others relate indirectly. Perhaps the goal of preparing for community living helps to account for some of the

difference in scores. Supporting the belief that good homemakers must also be good community-makers, they study the community and its needs and take on service projects or do other worthwhile community services. Also, the goal of trying to understand other nations definitely relates to social service. It is possible that reading books and articles, viewing films, discussing other nations, and contributing to food and clothing drives for needy families in various other countries caused interest in social service to be greater.

The goals of practicing the democratic way of living, developing personally, improving home and family living, earning a family living, living what they learn, and basing their experiences on needs, perhaps seem a little more related to personal and family development. If personal and family development is such that the people involved are assets to the family and community, then they are contributing to social services. This type of development is advocated by the Future Homemakers of America. It appears from this study, that membership in the Future Homemakers of America may have resulted in a greater interest in the social service area.

Clerical

In the clerical area, non-members scored higher with a total of 2432. Members' total scores were 2391. Mean scores for the non-members were 62.4, and 61.3 for the members, leaving a difference of 1.1 in favor of the non-members. Results of the "t" test supported the null hypothesis that there was no significant difference in the scores

of the members and of non-members. Thus, it may be said that members did not show a greater interest in the clerical area than did non-members.

Vocational Preferences and Year Level

Could there be any changes in patterns of interest in the ten areas of vocational interest in relation to year level? (Different year levels would also be different age levels.) It was the investigator's hypothesis that there was no definite relationship between year level and scores in the various areas of interest. According to Table II, there was no definite pattern of interest in relation to year level. In only three areas was there a difference of five points or more in the mean scores for the four-year range. These areas were mechanical, with a difference of five points; scientific, with a difference of five points; and social service, with a difference of six points. All other differences were fewer than five points. In the mechanical area, greater interest was shown by tenth and eleventh graders, with less interest by ninth and twelfth graders. In the scientific area, the trend was for the interest to decrease as the year level increased, ninth graders scored highest, seniors lowest. The area of social service was scored higher by ninth and twelfth graders and lower by tenth and eleventh graders.

In this study, the subjects of the random sample were classified into mutually exclusive categories. In order to know whether the observed frequencies in these categories are consistent with the

TABLE II
MEAN SCORES ON KUDER VOCATIONAL PREFERENCE RECORD
ACCORDING TO YEAR LEVEL

Area of Interest	9th	10th	11th	12th
Outdoor	27.8	28.6	26.7	25.2
Mechanical	19.7	23.3	20.7	18.3
Computational	21.9	23.9	23.6	23.2
Scientific	32.8	31.3	30.5	27.8
Persuasive	35.0	34.5	38.4	37.4
Artistic	30.9	27.2	28.7	29.0
Literary	19.0	19.6	18.9	19.8
Musical	13.5	14.0	15.1	12.8
Social Service	57.5	51.8	54.5	61.0
Clerical	60.2	62.2	61.0	65.0

hypothesis concerning the relative frequencies in these categories in the population studied, the Chi-Square (X^2) distribution for testing the hypothesis may be used. One of the hypotheses in this study was that there was no significant trend on the basis of year level in relation to the mean score in the ten areas of interest measured by the Kuder Preference Record. The formula for Chi-Square, as given by Garrett¹, is
$$X^2 = \sum \left[\frac{(f_o - f_e)^2}{f_e} \right]$$
. "fo" represents the occurrence of the observed or experimentally determined facts, while "fe" represents the expected frequency of occurrence in the hypothesis. If there were a significant relationship between year level and scores on the separate areas of interest of the Kuder Preference Record, the means for each year level should vary from the mean of the whole group consistently. After applying the X^2 test, it was shown that no significant relationship existed. The value of X^2 was 2.79 with 27 degrees of freedom. A X^2 of this value with 27 degrees of freedom indicated that no true relationship exists between the year level and scores in the ten areas of interest, thus the null hypothesis that no significant relationship existed between year level and scores on the areas of interest was supported.

Vocational Preferences and Intelligence Quotient

The investigator was also interested in knowing if at different levels of intelligence, the scores in certain interest areas tended to

¹ Henry E. Garrett, Statistics in Psychology and Education, (New York, Longmans, Green, and Company, 1947) p.241.

increase. Did the girls with higher intelligence quotients tend to score higher in some areas than did girls with lower intelligence quotients? The hypothesis was that there was no significant relationship between intelligence quotient and scores in the interest areas. As Table III indicates, the intelligence quotient range, which was from 71 to 119, was divided into seven class intervals, each having intervals of six units. Mean scores were computed for each intelligence quotient class interval in the ten interest areas. No definite increase in score in relation to increase in intelligence quotient was evident from the frequency distribution. However, in order to know whether the observed frequencies in the categories were consistent with relative frequencies in the categories for the population studied, the X^2 test was applied. X^2 was found to have a value of 20.465, with 54 degrees of freedom. The hypothesis that there was no definite relationship between intelligence quotient and scores on the interest areas was supported.

OPINIONS ABOUT EDUCATION

Differences Between Members and Non-Members

The Opinions about Education test was scored by using a value scale developed for use in Dr. Hieronymous' study. For each of the forty-six items, a score was given according to the opinion underlined or checked by the subject. These forty-six scores were added to give the total, and then mean scores were computed for members and non-members. The hypothesis was that there was no significant difference in the scores of the members and the non-members on the Opinions about

TABLE III

MEAN SCORES ON KUDER VOCATIONAL PREFERENCE RECORD
ACCORDING TO INTELLIGENCE QUOTIENT

Class Intervals of I. Q. Range	Area of Interest										Number in each class interval
	Outdoor	Mechanical	Computational	Scientific	Persuasive	Artistic	Literary	Musical	Social Service	Clerical	
71-77	27.7	24.3	22.3	25.0	34.6	32.0	21.6	14.3	54.0	57.6	3
78-84	23.8	25.6	20.6	26.0	38.4	25.8	18.6	13.6	56.0	60.8	5
85-91	27.2	22.2	19.8	22.0	40.6	27.8	17.0	11.8	56.6	69.2	5
92-98	27.2	21.7	25.5	36.3	34.5	31.0	19.0	15.8	49.9	59.5	13
99-105	28.7	21.0	22.1	31.4	36.5	28.2	19.3	14.1	54.0	59.4	27
106-112	27.7	19.1	24.6	30.9	35.5	28.5	21.0	14.2	57.9	63.5	22
113-119	24.0	21.0	28.7	26.4	35.3	28.3	14.0	10.7	56.3	72.3	3

Education test. Total scores revealed that members scored higher with a score of 7516 than non-members who scored a total of 7431. The mean score for the members was 192.7, while that for the non-members was 190.5, making a difference of 2.2 in favor of the members. After applying the "t" test, the investigator found that the difference was not significant at the 10% level; therefore, the null hypothesis that there was no significant difference between the scores of members and non-members on the Opinions about Education test was supported.

Opinions about Education and Year Level

Could it be possible that scores on the Opinions about Education test changed as year level increased? Would education be valued higher by twelfth graders than by ninth graders? The investigator's hypothesis was that there was no definite relationship between the scores and year level. Table IV shows the mean scores of the subjects according to

TABLE IV
MEAN SCORES ON OPINIONS ABOUT EDUCATION TEST
ACCORDING TO YEAR LEVEL

Year Level	Mean Score	Number in Year Level
9th	192.3	18
10th	189.6	26
11th	191.4	22
12th	189.5	12

year level. These means show less than a three point range in score, and no definite pattern of increase was evident. Ninth and eleventh graders scored slightly higher than tenth and twelfth graders. The X^2 test was applied in order to determine if the observed frequencies in these categories were consistent with relative frequencies in the population studied. The value of X^2 was found to be 24.48, with 15 degrees of freedom. This value with this much freedom was significant between the 5% and the 10% level; therefore the observed results were significantly different from the expected results. Thus the null hypothesis that there was no true relationship between year level and scores on the Opinions about Education test was not confirmed. Conversely, therefore, a significant relationship between year level and scores did exist.

Opinions About Education and Intelligence Quotient

Did the girls with higher intelligence quotients tend to score higher on the Opinions about Education test than did girls with lower intelligence quotients? The hypothesis was that there was no definite relationship between the scores and intelligence quotient. Table V shows the mean scores in each intelligence quotient class interval which indicates the higher scores were made in the 78-84 and the 113-119 intervals. The 92-98 interval scored lowest. The X^2 test was applied and found to have a value of 25.383, with 30 degrees of freedom. This value with this much freedom was found not to be

TABLE V
MEAN SCORES ON OPINIONS ABOUT EDUCATION TEST
ACCORDING TO INTELLIGENCE QUOTIENT

Class Intervals of Intelligence Quotient Range	Mean Score	Number in Each Class Interval
71-77	192	3
78-84	197	5
85-91	184	5
92-98	177	13
99-105	191	27
106-112	195	22
113-119	197	3

significant at the 10% level; therefore, the null hypothesis that no significant relationship existed between the intelligence quotient and scores on the Opinions about Education test was supported.

CHAPTER V

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

One of the major decisions which face adolescents today is the choice of their life's work. As revealed in the survey of literature, for some adolescents, certain factors (such as economic or physical conditions, parental influence, etc.) somewhat limit these choices, and therefore create no great problem of decision-making. For others, who have fewer or no limiting factors, this is a greater decision to make. For these decisions concerning future occupations, as well as other types of decisions to be made during adolescence, teen-agers seek and need help and guidance. In addition to guidance in the classroom, counseling from parents, from teachers, and from other people, various school clubs and organizations give worthwhile information that is helpful to students as they take their places in society. One such organization is the Future Homemakers of America, a national organization of pupils studying homemaking in junior and senior high schools. The overall goal of this organization is to help individuals improve personal, family, and community living.

Could it be possible that girls who were members of this organization have educational and vocational interests that were different from girls who were not members? The purpose of this study therefore was to (1) determine if there were differences in the educational and vocational interests of members of Future Homemakers of America and non-members, and (2) to determine what types of differences existed, if any.

The homemaking teachers from the three schools chosen to be used in this study, (Asheboro, Bessemer, and Sumner) supplied the investigator with lists of members of Future Homemakers in their schools. A sample of member subjects was chosen by random, and the number of subjects used from each school was based on total membership in the Future Homemakers of America chapter in each school. Information was secured from the cumulative records of each subject. This information included birthdate, year level, intelligence quotient and scholastic average. Using these data, the investigator matched the members with non-members according to factors listed above, within specific limitations for each factor. Thus, the non-member subjects were chosen.

The thirty-nine matched pairs chosen were given the Kuder Vocational Preference Record and the Opinions about Education, a portion of an instrument developed by Dr. Hieronymous. Scores of both groups on both tests were tabulated.

In order to compare the scores on the Kuder Vocational Preference Record, scores were totaled in each of the interest areas for members and for non-members, and mean scores were computed. In order to determine whether the differences in the scores were significant, the "t" test as given by Lindquist for matched pairs for determining to what degree the difference might be due to chance or limitations in sampling was applied. If these differences were found to be beyond the 10% level of confidence, they were considered not to be significant in each case.

The members had higher mean scores in the mechanical, scientific, persuasive, musical, and social service areas. Non-members scored higher in the outdoor, computational, artistic, literary, and clerical areas. However, the only areas in which the difference in scores were statistically significant were in the mechanical and social service areas, in which members of the Future Homemakers of America obtained significantly higher scores.

There was found to be no definite pattern of interest in the ten areas measured by the Kuder Vocational Preference Record in relation to year level. This was determined by application of the Chi-Square test to the mean scores in each area according to year level, in order to know whether the observed frequencies in these categories were consistent with the hypothesis concerning the relative frequencies in these categories in the entire population. Neither was there a true relationship between intelligence quotient and scores in the ten interest areas. The Chi-Square test was also applied to these data.

In comparing the scores on the Opinions about Education test, totals of members' and non-members' scores were found, and means computed. It was found that members scored higher, but with a difference of only 2.2 points in the mean score. This proved not to be significant at the 10% level, according to results of the "t" test.

The Chi-Square test revealed that there was a significant relationship between year level and scores on the Opinions about Education test. Ninth and eleventh graders scored higher than tenth and twelfth graders. There was found to be no significant relationship between

intelligence quotient and scores on the Opinions about Education test according to results of the Chi-Square test.

Interpretation of the above data points toward certain basic conclusions based upon the hypotheses set forth in this study. These conclusions are limited by the small size and restrictive nature of the sample. These conclusions are drawn as follows:

1. There was no significant difference in the mean scores of members and non-members in the ten areas of interest of the Kuder Vocational Preference Record, except in the mechanical and social service areas. Thus, the hypothesis that there was no significant difference in the scores in the vocational interests of the members and non-members of the Future Homemakers of America, was generally supported. The data failed to support the hypothesis only in the cases of the mechanical and social service interests.
2. There was no significant pattern of change in scores in the ten areas of interest of the Kuder Vocational Preference Record according to year level. Therefore, the hypothesis that there was no significant relationship between year level and scores in the ten areas of interest was supported.
3. No significant relationship was found to exist between intelligence quotient and scores in the ten areas of interest of the Kuder Vocational Preference Record. Thus, the hypothesis that there was no significant relationship

between intelligence quotient and scores in the ten areas of interest, was supported.

4. There was no significant difference between mean scores of the members and non-members on the Opinions about Education test. The hypothesis that there was no significant difference between the scores of the members and non-members on the Opinions about Education test, was supported.
5. A significant pattern of change was found to exist between year level and scores on the Opinions about Education test. The ninth and the eleventh graders scored higher than tenth and twelfth graders; thus the hypothesis that no significant pattern of change existed between the year level and scores on the Opinions about Education test, was not supported.
6. There was no significant relationship between the intelligence quotient and scores on Opinions about Education. Therefore, the hypothesis that there was no significant relationship between the intelligence quotient and scores on the Opinions about Education, was supported.

RECOMMENDATIONS FOR FURTHER STUDY

The results of this study indicate that further study is needed regarding the vocational and educational interests of youth who are members of certain youth organizations as compared with youth who are not members of such organizations. The following suggestions are made in regard to further studies:

1. Studies involving a larger sample than was used in this study.
2. Studies covering a wider area of the state or nation.
3. Studies of other youth organizations in addition to the Future Homemakers of America.
4. Studies of the differences between opinions and interests of parents and students in relation to education and vocations.
5. Studies comparing the interests of students before and after becoming members of the Future Homemakers of America.
6. Studies which might show the increases or decreases in interests during the duration of membership.

BIBLIOGRAPHY

A. BOOKS

- Anastasi, Ann. Psychological Testing, New York: The Macmillan Company, 1957. 682 pp.
- Garrett, Henry E. Statistics In Psychology and Education, New York: Longmans, Green, and Company, 1947. 465 pp.
- Garrison, Karl C. Psychology of Adolescents, Englewood Cliffs: Prentice-Hall, Inc., 1956. 529 pp.
- Ginzberg, Eli. Occupational Choice, An Approach to a General Theory, New York: Columbia University Press, 1951. 271 pp.
- Jersild, Arthur T. The Psychology of Adolescents, New York: The Macmillan Company, 1957. 438 pp.
- Lindquist, E. F. Statistical Analysis In Educational Research, Boston: Houghton Mifflin Company, 1940. 266 pp.
- Wattenberg, William W. The Adolescent Years, New York: Harcourt, Brace, and Company, 1955. 510 pp.
- Zachry, Caroline B. Emotion and Conduct In Adolescence, New York: Appleton-Century-Crofts, 1940. 563 pp.

B. PERIODICALS

- Amatora, Mary. Free Expression of Adolescents' Interests, Vols. 55-56 of Genetic Psychology Monographs. 58 Vols; Provincetown: The Journal Press, 1957.
- Peters, E. F. Factors Which Contribute to Youth's Vocational Choice, Vol. 25 of Journal of Applied Psychology. 42 Vols. Lancaster: The Science Printing Press Company, 1941.
- Roeber, Edward. A Study of Occupational Interests of High School Students. Vol. 34 of Journal of Educational Psychology. 48 Vols. Baltimore: Warwick and York, Inc., 1943.

C. PUBLICATIONS OF ORGANIZATIONS

Survey Research Center, Adolescent Girls, A Nationwide Study of Girls Between Eleven and Eighteen Years of Age. University of Michigan: Ann Arbor, Michigan. 251 pp.

Chapter Handbook For Organizations of High School Homemaking Students, Washington: National Headquarters, Office of Education; United States Department of Health, Education, and Welfare, 1957. 71 pp.

D. UNPUBLISHED MATERIALS

Hieronymous, A. N. A Study of Social Class Motivation; Relationships Between Anxiety For Education and Certain Socio-Economic and Intellectual Variables, State University of Iowa: Iowa City, Iowa.

APPENDIX

DATA FOR MEMBERS

Subject No.	I. Q.	Age	Year Level	Scholastic Average
A-3	104	10-18-44	9	2.6
A-12	99	9-11-43	10	3.0
A-11	109	3-29-43	10	3.8
A-13	101	7-26-43	10	2.8
A-8	101	8-23-43	10	4.3
A-50	91	3-21-42	11	2.5
A-31	119	7- 1-42	11	3.3
A-29	108	9- 7-42	11	2.7
A-51	99	12-23-41	11	3.0
A-42	109	3-25-41	12	3.8
A-40	82	8-28-41	12	2.1
A-37	87	7-27-41	12	2.7
A-41	99	4- 6-41	12	3.1
B-16	102	9- 6-44	9	4.0
B-7	107	1-28-44	9	4.0
B-10	107	3-13-44	9	2.8
B-64	109	2- 7-44	9	3.7
B-67	94	8-30-43	10	3.3
B-9	109	4-18-43	10	3.4
B-3	111	8-18-42	11	3.8
B-2	107	9- 9-42	11	3.4
B-1	101	1-28-41	12	3.9
S-50	106	7-31-44	9	2.7
S-52	99	12-28-43	9	3.6
S-57	107	5-17-44	9	3.3
S-29	94	8-26-44	9	2.0
S-1	73	7- 6-43	10	2.2
S-89	100	6-28-43	10	3.4
S-8	79	6-18-43	10	3.0
S-83	86	6-10-43	10	2.2
S-37	97	8-26-43	10	2.8
S-2	97	12-23-42	10	3.0
S-12	95	4-20-43	10	3.2
S-105	105	4-15-42	11	3.1
S-5	102	10-21-42	11	2.7
S-10	78	10-19-42	11	2.2
S-6	105	11-7-41	11	4.0
S-98	99	10- 7-41	11	2.4
S-132	104	12-22-40	12	3.6

DATA FOR NON-MEMBERS

Subject No.	I.Q.	Age	Year Level	Scholastic Average
A-6	104	8-30-44	9	3.0
A-15	100	9- 2-43	10	3.2
A-20	108	3-12-43	10	3.5
A-27	103	8-18-43	10	2.8
A-19	102	7- 9-43	10	4.0
A-54	93	2-17-42	11	2.1
A-34	117	8- 6-42	11	3.8
A-36	104	7-31-42	11	2.9
A-55	99	2-23-42	11	2.7
A-43	111	3- 2-41	12	3.3
A-49	80	5-27-41	12	2.2
A-56	86	8-25-41	12	2.6
A-57	104	3- 5-41	12	3.5
B-14	107	8- 7-44	9	3.8
B-22	108	1-24-44	9	3.7
B-25	105	3-13-44	9	3.1
B-72	108	3-13-44	9	4.0
B-70	96	7- 2-43	10	3.4
B-63	109	2- 4-43	10	3.8
B-35	115	8- 2-42	11	3.8
B-41	109	9-28-42	11	3.0
B-6	101	1-12-41	12	3.9
S-55	107	8-26-44	9	3.1
S-54	95	1-12-44	9	3.3
S-60	109	4-12-44	9	3.6
S-129	95	9- 9-43	9	2.2
S-42	71	8-12-43	10	2.5
S-92	96	8- 1-43	10	3.0
S-118	79	7-11-43	10	2.8
S-80	88	3-27-43	10	2.2
S-81	92	7-19-43	10	2.6
S-44	94	11- 3-42	10	3.4
S-41	99	3-27-43	10	2.8
S-100	106	2- 9-42	11	3.4
S-112	101	7-21-42	11	2.6
S-95	74	9-17-42	11	2.2
S-46	101	12- 7-41	11	3.5
S-115	96	11-16-41	11	2.9
S-134	109	12-23-40	12	4.0

OPINIONS ABOUT EDUCATION

INSTRUCTIONS:

Below are some statements of opinion about our educational system. You will agree with some of them and disagree with some of them. You are asked to underline the phrase which best expresses your feeling about the statement. If in doubt, underline the phrase which seems most nearly to express your present feeling about the statement. Be sure to answer every item. Remember, your answers cannot be wrong since there is no right or wrong answer. You are asked merely to give your honest opinion. Do not give your name.

1. The law should be changed so that boys and girls would have to stay in school until they completed high school.

Strongly Agree Agree Undecided Disagree Strongly Disagree

2. The farther a person goes in school the better able he is to enjoy life.

Strongly Agree Agree Undecided Disagree Strongly Disagree

3. A student who intends to be a farmer should not be required to take courses in English and social studies.

Strongly Agree Agree Undecided Disagree Strongly Disagree

4. The most common way in which poor people raise their standard of living is through education.

Strongly Agree Agree Undecided Disagree Strongly Disagree

5. The length of the school day should be cut down to allow more time for out-of-school work and recreation.

Strongly Agree Agree Undecided Disagree Strongly Disagree

6. Two additional years of school should be added on to the high school to provide more training for anyone who wants it.

Strongly Agree Agree Undecided Disagree Strongly Disagree

7. Parents should not make their children finish high school.

Strongly Agree Agree Undecided Disagree Strongly Disagree

8. The school helps a person learn how to use his spare time to best advantage.

Strongly Agree Agree Undecided Disagree Strongly Disagree

9. Parents should be allowed to keep their children out of school to work as often as they want to.

Strongly Agree Agree Undecided Disagree Strongly Disagree

10. In getting ahead in most jobs a man with a high school education has a big advantage over one who does not have one.

Strongly Agree Agree Undecided Disagree Strongly Disagree

11. The things that are taught in school are completely out-of-date.

Strongly Agree Agree Undecided Disagree Strongly Disagree

12. The great advances made by science in America are due largely to the great public education system we have.

Strongly Agree Agree Undecided Disagree Strongly Disagree

13. The things a person learns in school are of great value in helping him keep in good health.

Strongly Agree Agree Undecided Disagree Strongly Disagree

14. A high school education is of great value to a person in helping him decide for whom to vote in local, state, and national elections.

Strongly Agree Agree Undecided Disagree Strongly Disagree

15. Students who plan to go to work in factories should be allowed to quit school as soon as they are able to find the kind of work they want.

Strongly Agree Agree Undecided Disagree Strongly Disagree

16. Solution of the world's problems will come through education.

Strongly Agree Agree Undecided Disagree Strongly Disagree

17. School training is of little help in meeting the problems of real life.

Strongly Agree Agree Undecided Disagree Strongly Disagree

18. The school system is even more important than our natural resources in making our country great.

Strongly Agree Agree Undecided Disagree Strongly Disagree

19. Except for vocational training, a high school education is of little value to students who plan to take laboring jobs in factories.

Strongly Agree Agree Undecided Disagree Strongly Disagree

20. I would rather work than go to school, even if I didn't need the money.

Strongly Agree Agree Undecided Disagree Strongly Disagree

21. The things I learn in school are a lot of junk and will not help me when I get out.

Strongly Agree Agree Undecided Disagree Strongly Disagree

22. Going to high school helps a person learn how to choose wisely the things that he buys.

Strongly Agree Agree Undecided Disagree Strongly Disagree

23. A high school education helps a person realize the value of good music and literature.

Strongly Agree Agree Undecided Disagree Strongly Disagree

24. Employers pay too much attention to the amount of education a person has.

Strongly Agree Agree Undecided Disagree Strongly Disagree

25. A young person can learn more working on a job than in high school.

Strongly Agree Agree Undecided Disagree Strongly Disagree

26. In general, I like to associate with people who have a high school education better than with those who do not have one.

Strongly Agree Agree Undecided Disagree Strongly Disagree

27. If one's parents need him at home, he shouldn't have to go to high school.

Strongly Agree Agree Undecided Disagree Strongly Disagree

28. Since quite a few of our great men have had no high school education, it has little effect on future success.

Strongly Agree Agree Undecided Disagree Strongly Disagree

29. High schools are a waste of taxpayers' money.

Strongly Agree Agree Undecided Disagree- Strongly Disagree

30. The high school teaches mostly old, useless information.

Strongly Agree Agree Undecided Disagree Strongly Disagree

31. Additional taxes should be collected to pay the expenses of a college education for anyone who wants to go and has proven to be a capable student.

Strongly Agree Agree Undecided Disagree Strongly Disagree

32. The most promising means of attaining fame and fortune is through education.

Strongly Agree Agree Undecided Disagree Strongly Disagree

33. Without a good education, it is practically impossible to lead a happy, well-balanced life.

Strongly Agree Agree Undecided Disagree Strongly Disagree

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Below are some questions about different things and some answers which have been given by other students. For each question, check (✓) the answer with which you most closely agree. As before, it is your opinion that is asked for. Be sure to mark each item.

34. Which of the following best states what you think about the value of a high school education?
- a. Going to high school is almost a necessity if a person is going to be able to solve his everyday problems well.
 - b. Going to high school is a big advantage, but it is not necessary for being a success.
 - c. Going to high school is all right for some people, but it would be a waste of time for many.
 - d. Only those people who make the very best grades in the elementary school should go to high school.
 - e. Going to high school is a waste of time for most people.
35. Which of the following do you think is the best statement about the amount of money that should be raised by taxes to pay for the expenses of running high schools? (Remember that you will be a taxpayer in a few years yourself.)
- a. Schools should have at least twice as much money as they now have.
 - b. School taxes should be increased somewhat, but only enough to hire better teachers.
 - c. Schools have about the right amount of money now.
 - d. Schools cost the taxpayer too much as it is—they should get along on less money by being careful how the money is spent.
 - e. Much of the money that goes to the school is pure waste. School expenses should be cut almost in half.
36. The main reason I am going to high school is:
- a. I'm not old enough to quit.
 - b. My parents want me to finish high school.
 - c. Most of my friends are in high school.
 - d. A high school education will help me get a better job.
 - e. A high school education is necessary for getting more out of life.
37. When you marry, how much education would you like for your wife or husband to have?
- a. The less the better.
 - b. I wouldn't care one way or another.

- c. About the same amount I expect to have.
 - d. At least a high school education.
 - e. At least a college education.
38. Do you feel that going to high school will help you earn a living?
- a. No help.
 - b. Little help.
 - c. A fair amount of help.
 - d. Considerable help.
 - e. Great help.
39. Are you interested in the things you do at school?
- a. I think school is very interesting.
 - b. I think school is fairly interesting.
 - c. I think school is not very interesting.
 - d. I think school is pretty boring.
 - e. I think school is very boring.
40. How much of the time do you enjoy being in school?
- a. All the time.
 - b. Most of the time.
 - c. Fairly often.
 - d. Hardly ever.
 - e. Never.
41. If you had a lifetime income of all the money you could ever possibly need, which of the following would you choose to do?
- a. Stop school right away and have a good time.
 - b. Hire a private teacher who would teach only what I wanted to know.
 - c. Go to school until graduation from high school.
 - d. Go to school until graduation from college.
 - e. Continue my education after college by attending the great universities of the world.

42. What is the least amount of money you would take to get you to leave school permanently?
- \$100
 - \$1000
 - \$10,000
 - \$1,000,000
 - None--- I would leave now if I had the chance.
43. How do you think your opinion of school compares with others' of your age?
- I like school much better than most of the students.
 - I like school somewhat better than most of the other students.
 - I like school about as well as most of the other students.
 - I dislike school more than most students do.
 - Very few of the other students dislike school as much as I.
44. Do you think an education helps a person get more enjoyment out of life?
- The more education a person has, the less satisfied he is with life.
 - Poorly educated people enjoy life just as much as well-educated people.
 - The amount of education has little or no effect on enjoyment of life.
 - Well-educated people seem to get more enjoyment out of life than do poorly-educated people.
 - The more education a person has, the better able he is to enjoy life.
45. Which of the following statements do you agree with?
- Most high school students would be better off if they quit school and went to work.
 - About half the high school students would be better off if they quit school and went to work.
 - Quite a few high school students would be better off at work.
 - Very few high school students would be better off at work.
 - Except for extreme cases, all students should be required to finish high school.
46. How well do you like school?
- I like it very much.
 - I like it fairly well.
 - I don't care much for school one way or the other.
 - I don't like school very much.
 - I don't like school at all.